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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,997	10/12/2004	Wolfgang Bremser	PAT-00361	6692
26922	7590	03/18/2008	EXAMINER	
BASF CORPORATION Patent Department 1609 BIDDLE AVENUE MAIN BUILDING WYANDOTTE, MI 48192			SASTRI, SATYA B	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			03/18/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/510,997	<b>Applicant(s)</b> BREMSE ET AL.	
	<b>Examiner</b> SATYA B. SASTRI	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9, 12, 13 and 26 is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 11, 14-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to amendment filed on February 28, 2008. Claims 1-26 are now pending in the application.
2. In view of the amendment and arguments, previous rejections under 35 U.S.C. 103(a) as being unpatentable over Kamo et al. (US 6,589,324 B2) and under 35 U.S.C. 103(a) as being unpatentable over Kambe et al. (US6,599,631 B2) are withdrawn. However, the provisional rejection of claims 1-5, 10, 11, 14-25 (originally presented in the office action dated 1/11/07) under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of copending application 10/510,993 (amdt. dated 4/16/07, appl. published as US 2005/0182169 A 1) to Stubbe et al. is sustained. If the double-patenting rejection is the only rejection remaining in this application and if there is a provisional obviousness-type double patenting rejection in the later-filed copending application, per USPTO practice, the examiner will withdraw the rejection. Additionally, allowable subject matter indicated for claims 6-9, 12, 13, 26 (as indicated office action dated 11/28/07) is maintained.

Further, in view of the newly found art, finality is withdrawn and new rejections are introduced in this office action.

### ***Previously Cited Statutes***

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3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-5, 10, 11, 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Ishii et al. (US 5,916,635) or Kamo et al. (US 6,589,324 B2) in view of Craig et al. (US2002/0099119 A1) and Pagac et al. (US 6,565,978 B1).

The prior art to Ishii et al. discloses hydrophilic coatings with water-soluble carboxylic acid polymers and colloidal silica with a particle diameter of 5-100 nm and having a pH of 1-5 (abstract).

The water-soluble polymer may be mixed with polymers functioning either as crosslinking agents capable of insolubilizing the carboxylic acid polymers or as film forming softeners. Polymers usable with the water-soluble polymers include resins containing ether linkage in the molecule such as poly(ethylene glycol), polyetherpolyurethanes and polyglycidyl ethers. The proportion of the crosslinking agents is any amount up to the limit which is equivalent to the carboxylic acid content of the polymer (col. 4, lines 4-27).

The colloidal silica and the carboxylic functional polymers may be mixed in a wt. ratio of 30:70 to 70:30 (col. 4, lines 28-30).

The discussion with regard to the prior art Kamo et al. in the office action dated 6/18/07 is incorporated herein by reference.

In summary, Kamo et al. disclose agent for metallic coating surface comprising at least one aluminum salt and an inorganic oxide particle, a salt of a metal other than aluminum, a phosphorus compound and a resin (abstract). The resin component may be an acrylic resin

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containing hydroxyl and/or carboxyl groups so as to disperse the resin in an aqueous solvent (col. 6, lines 51-67, col. 7, lines 22-30, 53-67 and col. 8, lines 1-24). The content of the resin may be 30-80% of the total treating agent (col. 6, lines 43-46).

The aluminum-containing inorganic oxide particle has an average particle size ranging from 1-20 nm and the amount of such particles may range from 2-80 parts by wt. per 100 parts of resin (col. 17, lines 24-67). The treating agents of Kamo et al. preferably have a pH of 1.5-3.5 (col. 18, lines 54-57).

The difference between the prior art and the instant invention is that the prior does not disclose compositions comprising (a) surface treated nanoparticles and (b) amphiphilic compound in an amount of 1-10% by wt. of polymer, nanoparticles and amphiphilic compound.

The prior art to Craig et al. discloses waterborne creamer compositions comprising acidic colloidal silica nanoparticles (abstract, pages 2-3, 0029). Further, the silica particles may be surface treated with a variety of organofunctional silane monomer (page 3, 0033-0034). Thus, it would have been obvious to a skilled artisan to surface treat the acidic silica nanoparticles of Ishii et al. or Kamo et al. because Craig et al. teach that such surface treatment enables coupling agents to bind to the surface of inorganic particles thus facilitating intimate and isotropic bonding of coated particles with an organic matrix.

Furthermore, Pagac et al. disclose basecoat compositions with crosslinkable film-forming compositions and amphiphilic compounds (abstract, col. 2, lines 20-52). The compositions include at least 1-50%, based on the total amount of the resin, of amphiphilic compounds (col. 5, lines 32-67, col. 6, lines 1-25). Thus, it would have been with the level of ordinary skill in the art to include such amphiphilic compounds in the compositions of Ishii et al. because Pagac et al.

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teach that compositions comprising amphiphilic compounds afford smooth coating (col. 1, lines 15-19, 51-55, 57-67 and col. 2, lines 1-7).

The ionic and/or potentially ionic and/or non-ionic hydrophilic functional group-containing polymers of Ishii et al. and Kamo et al. must inherently have the presently claimed properties of instant claims 4 and 5.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112. The examiner can be reached on Mon.-Wed., 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Satya B Sastri/

Examiner, Art Unit 1796